

CLAIMS

1. An information record medium on which there are recorded:
video information to indicate a main-video;
5 sub-video information to indicate a sub-video displayable at
least partially over the main-video; and
sub-video control information including (i) a plurality of
types of control information elements for display control of the
sub-video information in various methods set in advance and (ii)
10 type indicating information to indicate presence or absence, or
effectiveness or ineffectiveness of the control information elements
by each of the types.
2. The information record medium according to claim 1, wherein
15 the sub-video control information further includes sub-frame
range information to specify at least a partial area of the sub-video
as a sub-frame,
the control information element comprises information for
controlling the sub-video information by a unit of the sub-frame,
20 and
the type indication information indicates the presence or
absence, or the effectiveness or ineffectiveness of the control
information elements by the unit of the sub-frame.
- 25 3. The information record medium according to claim 1, wherein
the type indication information comprises table information

including one bit of information by each of the types.

4. The information record medium according to claim 3, wherein the table information includes extension bit information which is not associated with the types, and a part occupied by the control information elements in the sub-video control information is variable-length.

5. The information record medium according to claim 1, wherein the control information element includes dynamic control information to display the sub-video information dynamically.

6. The information record medium according to claim 1, wherein the control information element includes shading-display control information to selectively shade an opaque part out of the sub-video and display it over the main-video.

7. The information record medium according to claim 1, wherein the control information element includes (i) button information which defines at least a part of the sub-video which is to be displayed over the main-video, as a button video part which functions as a button, and (ii) highlight information which defines how to perform highlight-display control over the button video part.

8. The information record medium according to claim 1, wherein the main-video information, the sub-video information and

the sub-video control information are divided into predetermined packet units and multiplexed, and further streamed relatively into a video stream composed of the divided main-video information, a sub-picture stream composed of the divided sub-video information set and a control information stream composed of the divided sub-video control information.

9. An information record apparatus comprising:
- a first record device for recording video information to indicate a main-video;
 - a second record device for recording sub-video information to indicate a sub-video displayable at least partially over the main-video; and
 - a third record device for recording sub-video control information including (i) a plurality of types of control information elements for display control of the sub-video information in various methods set in advance and (ii) type indicating information to indicate presence or absence, or effectiveness or ineffectiveness of the control information elements by each of the types.

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10. An information record method comprising:
- a first record process of recording video information to indicate a main-video;
 - a second record process of recording sub-video information to indicate a sub-video displayable at least partially over the main-video; and

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a third record process of recording sub-video control information including (i) a plurality of types of control information elements for display control of the sub-video information in various methods set in advance and (ii) type indicating information to
5 indicate presence or absence, or effectiveness or ineffectiveness of the control information elements by each of the types.

11. An information reproduction apparatus for reproducing information on the information record medium according to claim 1,
10 said information reproduction apparatus comprising:

a reproduction device for reproducing the video information, the sub-video information and the sub-video control information;

a display output device capable of displaying and outputting the reproduced sub-video information over the reproduced video
15 information; and

a control device for controlling the display output device to display-control the sub-video information in the various methods and display the sub-video information over the main-video, on the basis of the control information element whose presence or
20 effectiveness is shown by the type indication information which is included in the reproduced sub-video control information.

12. An information reproduction method of reproducing information on the information record medium according to claim 1,
25 said information reproduction method comprising:

a reproduction process of reproducing the video information,

the sub-video information and the sub-video control information;
and

a control process of controlling a display output device capable of displaying and outputting the reproduced sub-video
5 information over the reproduced video information, to display-control the sub-video information in the various methods and display the sub-video information over the main-video, on the basis of the control information element whose presence or effectiveness is shown by the type indication information which is
10 included in the reproduced sub-video control information.

13. An information record reproduction apparatus comprising:

a first record device for recording video information to indicate a main-video;

15 a second record device for recording sub-video information to indicate a sub-video displayable at least partially over the main-video;

a third record device for recording sub-video control information including (i) a plurality of types of control information
20 elements for display control of the sub-video information in various methods set in advance and (ii) type indicating information to indicate presence or absence, or effectiveness or ineffectiveness of the control information elements by each of the types;

a reproduction device for reproducing the video information,
25 the sub-video information and the sub-video control information;

a display output device capable of displaying and outputting

the reproduced sub-video information over the reproduced video information; and

a control device for controlling the display output device, to display-control the sub-video information in the various methods
5 and display the sub-video information over the main-video, on the basis of the control information element whose presence or effectiveness is shown by the type indication information which is included in the reproduced sub-video control information.

10 14. An information record reproduction method comprising:

a first record process of recording video information to indicate a main-video;

a second record process of recording sub-video information to indicate a sub-video displayable at least partially over the
15 main-video;

a third record process of recording sub-video control information including (i) a plurality of types of control information elements for display control of the sub-video information in various methods set in advance and (ii) type indicating information to
20 indicate presence or absence, or effectiveness or ineffectiveness of the control information elements by each of the types;

a reproduction process of reproducing the video information, the sub-video information and the sub-video control information; and

25 a control process of controlling a display output device capable of displaying and outputting the reproduced sub-video

information over the reproduced video information, to display-control the sub-video information in the various methods and display the sub-video information over the main-video, on the basis of the control information element whose presence or effectiveness is shown by the type indication information which is included in the reproduced sub-video control information.

15. A computer program for a record control, to control a computer disposed at the information record apparatus according to claim 9, said computer program making the computer function as at least a part of the first record device, the second record device and the third record device.

16. A computer program for a reproduction control to control a computer disposed at the information reproduction apparatus according to claim 11, said computer program making the computer function as at least a part of the reproduction device, the display output device and the control device.

17. A computer program for a record reproduction control to control a computer disposed at the information record reproduction apparatus according to claim 13, said computer program making the computer function as at least a part of the first record device, the second record device, the third record device, the reproduction device, the display output device and the control device.

18. A data structure including a control signal, said data structure having:

- video information to indicate a main-video;
- sub-video information to indicate a sub-video displayable at

5 least partially over the main-video; and

- sub-video control information including (i) a plurality of types of control information elements for display control of the sub-video information in various methods set in advance and (ii) type indicating information to indicate presence or absence, or

10 effectiveness or ineffectiveness of the control information elements by each of the types.